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13. (Once Amended) The immobilized enzyme according to claim 11 or 12, wherein said carrier comprising a porous inorganic material has a pore size of 10-80 nm.

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16. Once Amended) A method for producing an immobilized enzyme, comprising absorbing (S)-hydroxynitrile lyase derived from one or more of Euphorbiaceae, Poaceae (Gramineae), and Olacaceae on a carrier comprising a porous inorganic material.

- 17. (Once Amended) The method for producing an immobilized enzyme according to claim 16, wherein said carrier comprising a porous inorganic material is selected from a sintered clay carrier, a silica carrier, an alumina carrier and a silica alumina carrier.
- 18. (Once Amended) The method for producing an immobilized enzyme according to claim 16 or 17, wherein said carrier comprising a porous inorganic material has a pore size of 10-80 nm.

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1300 I Street, NW <u>Washington, DC 20005</u> 202.408.4000 Fax 202.408.4400 www.finnegan.com 21. (Once Amended) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 11 or 12 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.

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- 29. (NEW) The immobilized enzyme according to claim 11 or 12, wherein said carrier comprising a porous inorganic material has a pore size of 10-60 nm.
- 30. (NEW) The immobilized enzyme according to claim 11 or 12, wherein the surface area of the porous inorganic material is more than 20 m<sup>2</sup>/g.

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- 2 31. (NEW) The immobilized enzyme according to claim 11 or 12, wherein the pH at the time of enzyme absorption is between 4.83 and 6.79.
- 32. (NEW) The method for producing an immobilized enzyme according to claim 16 or 17, wherein said carrier comprising a porous inorganic material has a pore size of 10-60 nm.
- 33. (NEW) The method for producing an immobilized enzyme according to claim 16 or 17, wherein the surface area of the porous inorganic material is more than 20 m<sup>2</sup>/g.

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34. (NEW) The method for producing an immobilized enzyme according to claim 16 or 17, wherein the pH at the time of enzyme absorption is between 4.83 and 6.79.

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1300 l Street, NW Washington, DC 20005 202.408.4000 Fax 202.408.4400 www.finnegan.com 35. (NEW) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 29 into contact with a carbonyl

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compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.

36. (NEW) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 30 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.

- 37. (NEW) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 31 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.
- 38. (NEW) The method for producing an optically active cyanohydrin according to claim 35, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.
- 39. (NEW) The method for producing an optically active cyanohydrin according to claim 36, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

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40. (NEW) The method for producing an optically active cyanohydrin according to claim 37, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

## **REMARKS**

## Status of the Claims

Claims 11-13, 16-18, 21, 22, and 25-40 are currently pending in this application. The claims are first amended to recite (S)-hydroxynitrile lyase "absorbed on a carrier comprising a porous inorganic material." (For example, claims 11 and 16.) This amendment is supported in the application as a whole, for example, at page 1, lines 4-7; page 6, line 21, to page 7, line 7; Examples 2-5 at pages 11-17; and Figures 1-4. The independent claims, such as claim 11, are also amended to recite (S)-hydroxynitrile lyase "derived from one or more of *Euphorbiaceae*, *Poaceae* (*Gramineae*), and *Olacaceae*." This amendment is also supported by the application as a whole, for example, in originally filed claim 4 and at page 3, lines 13-17. Finally, claims 11, 13, 17, 18, and 21 are amended to alter their grammatical format, as described further below.

Several new claims have also been added. Support for new claims 29, 32, 35, and 38, reciting a "pore size of 10-60 nm" may be found, for example, in the specification at page 6, line 12, and in Example 3, page 14, and Tables 3 and 4. Support for new claims 30, 33, 36, and 39, reciting a "surface area of 20 m²/g," may be found at page 6, line 15, and in Example 3, page 14, and Table 4. Support for new claims 30, 34, 37, and 40, reciting a "pH between 4.83 and 6.79," may be found, for

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